WHAT IS CLAIMED IS:

1   1.   A programmable logic device comprising:

2   a plurality of logic array blocks;

3   a programmable interconnect bus, programmably coupled to the

4 plurality of logic array blocks;

5   a tristate bus; and

6   a plurality of tristate devices, coupled between the plurality of logic

7 array blocks and the tristate bus, wherein the plurality of tristate devices couple and decouple

8 the logic array blocks to the tristate bus.

1   2.   The programmable logic device of claim 1 further comprising:

2   a plurality of OE generation circuits, coupled to the plurality of tristate

3 devices, the plurality of OE generation circuits controlling the plurality of tristate devices.

1   3.   The programmable logic device of claim 2 wherein a logic array block

2 programmably couples to drive the plurality of OE generation circuits.

1   4.   The programmable logic device of claim 1 further comprising:

2   a tristate bus driver, coupled between the tristate bus and the

3 programmable interconnect bus, for driving signals between the tristate bus and

4 programmable interconnect bus.

1   5.   A programmable logic device comprising:

2   a programmable interconnect bus; and

3   a logic array block, comprising:

4   a plurality of logic elements configurable to perform logical functions;

5   a plurality of tristate drivers, coupled between the plurality of logic

6 elements and the programmable interconnect bus; and

7   tristate control logic controlling states of the plurality of tristate

8 drivers.

1   6.   The programmable logic device of claim 5 wherein the plurality of

2 tristate drivers are programmably enabled to couple the plurality of logic elements to the

3 programmable interconnect bus.

1   7.   The programmable logic device of claim 5 wherein the tristate control

2   logic is programmably coupled to signals on the programmable interconnect bus for

3   controlling the states of the plurality of tristate drivers.

1   8.   The programmable logic device of claim 5 wherein one of the plurality

2   of logic elements is coupled through one of the plurality of tristate drivers through the

3   programmable interconnect bus to another one of the plurality of logic elements.

1   9.   A tristate driver for an integrated circuit comprising:

2   a data input;

3   an enable control node;

4   a first driver transistor, coupled between a first potential source and an

5   output node;

6   a second driver transistor, coupled between the output node and a

7   second potential source;

8   a first predriver comprising:

9   a first transistor, coupled between the first potential source and a

10   control electrode of the first driver transistor, having a control electrode coupled to an

11   inversion of the enable input;

12   a second transistor, coupled between the control electrode of the first

13   electrode driver transistor and control of the second driver transistor, having a control

14   electrode coupled to the inversion of the enable input; and

15   a third transistor, coupled between the control electrode of the second

16   driver transistor and the second potential source, having a control electrode coupled to the

17   enable input; and

18   a second predriver comprising:

19   a first transistor, coupled between the first potential source and the

20   control electrode of the first driver transistor, having a control electrode coupled to the data

21   input;

22   a second transistor, coupled between the control electrode of the first

23   driver transistor and the control electrode of the second driver transistor, having a control

24   electrode coupled to the enable input; and

25   a third transistor, coupled between the control electrode of the second

26 driver transistor and the second potential source, having a control electrode coupled to the

27 data input.

1   10. The tristate driver of claim 9 further comprising:

2   an enable control, generating an output signal at the enable control

3 node for programmably enabling and programmably disabling the tristate driver.